

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Grand Glaize Creek

Water Body ID: 2184

Water Body Segment at a Glance:

County: St. Louis
Nearby Cities: Valley Park and Fenton
Length: 4 miles
Pollutants: Chloride and
Escherichia coli (*E. coli*)
Source: Urban runoff/Storm sewers

Note: See Mercury information sheet for Mercury impairment

Schedule for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm



State Map Showing Location of Watershed

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Grand Glaize Creek is impaired due to exceedances of state water quality criteria that protect aquatic life and whole body contact recreation designated uses.

Designated uses of Grand Glaize Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Uses that are impaired

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)

Criteria that apply

- Numeric criteria for chloride are found in 10 CSR 20-7.031 Table A and are dependent upon water hardness and sulfate concentrations. However, this criteria was disapproved by the U.S. Environmental Protection Agency. For this reason, the assessment of Grand Glaize Creek as impaired is based on the state's former EPA-approved chronic chloride criterion of 230 milligrams per liter (mg/L).
- Numeric bacteria criteria for the protection of recreational uses is found in 10 CSR 20-7.031(5)(C) and Table A. For category B waters, *E. coli* counts, measured as a geometric mean, shall not exceed 206 counts/100 mL of water "during the recreational season." The state's recreational season is defined in this section of the rule as being from April 1 to October 31.

Background information and water quality data

Grand Glaize Creek is an urban stream in southern St. Louis County and is a tributary to the Meramec River. Data collected by the U.S. Geological Survey, or USGS, show exceedances of the state's former chronic chloride criterion. The listing methodology used to assess Grand Glaize Creek allows a water body to be judged as impaired by toxics, such as chloride, if a criterion is exceeded more than once in the last three years of data when the stream is at stable flow conditions. For Grand Glaize Creek, there were three occurrences between June 2009 and June 2012 where the chronic chloride criterion was exceeded during stable flow conditions (Figure 1).

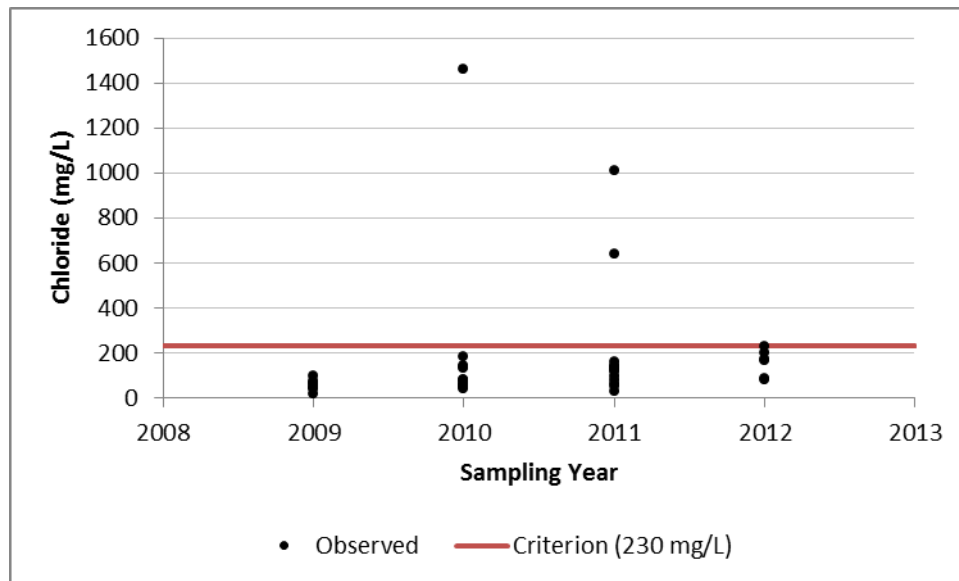


Figure 1. Chloride data (2009 – 2012)

For *E. coli* bacteria, a water is judged to be impaired if the criterion is exceeded in any of the last three years for which there is adequate data (a minimum of five samples collected during the recreational season). Adequate data was available in 2009, 2010, and 2011. The whole body contact recreation category B criterion was exceeded in both 2010 and 2011 (Figure 2).

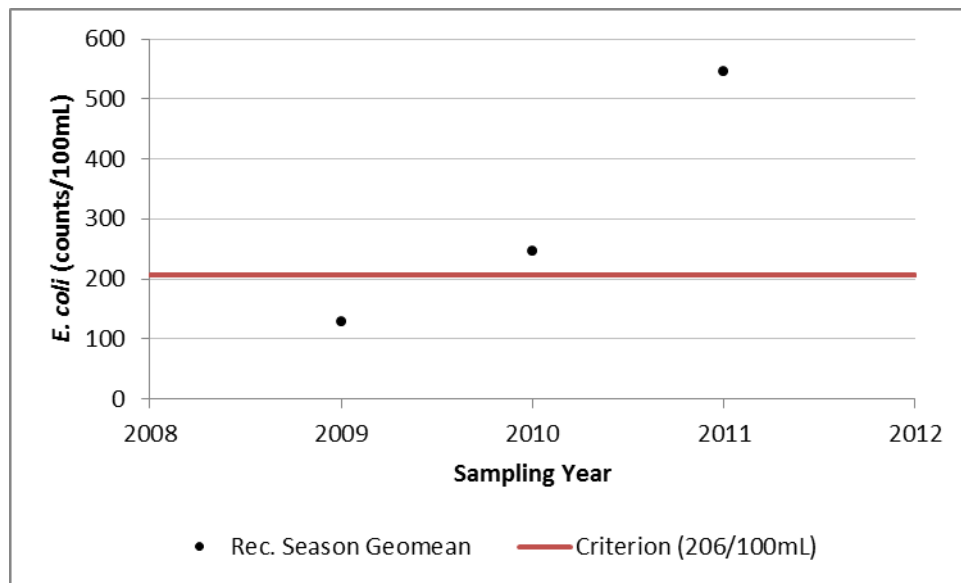


Figure 2. Recreational season *E. coli* data (2009 – 2011)

TMDL for Grand Glaize Creek

The Grand Glaize Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Grand Glaize Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

For more information call or write:

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Program Home Page: dnr.mo.gov/env/wpp/index.html

Map Showing the Grand Glaize Creek Watershed and Sample Sites

